

## BFW Proportional directional valve



This product is a direct-action valve with one or two proportional solenoid to control the flow rate and directions in the hydraulic system.

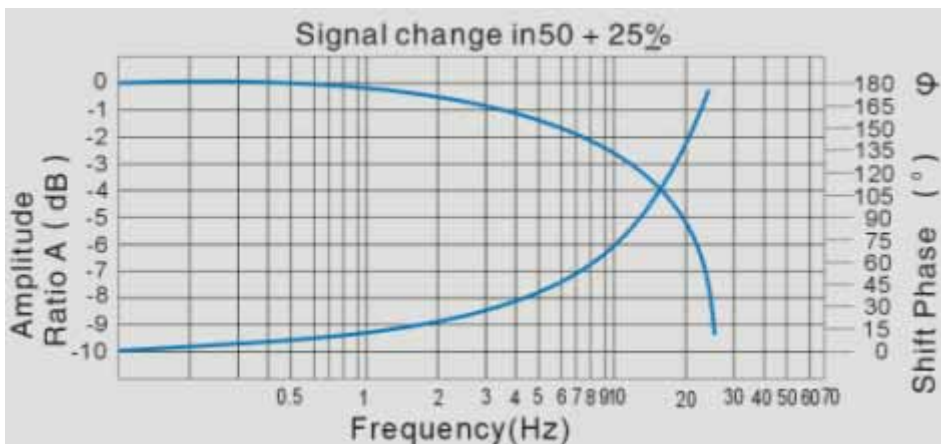
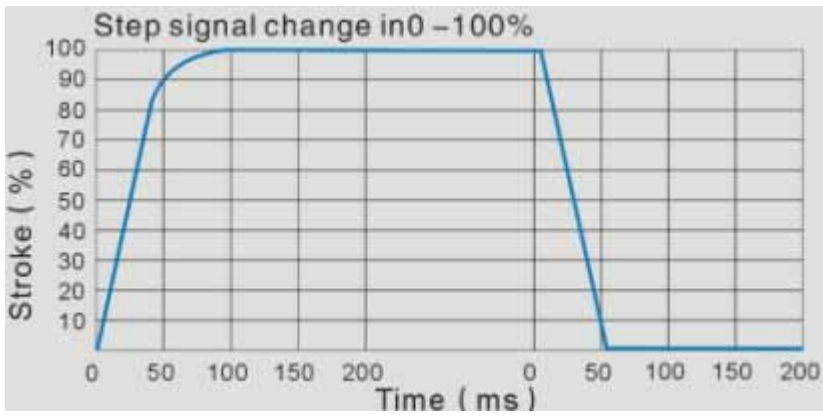
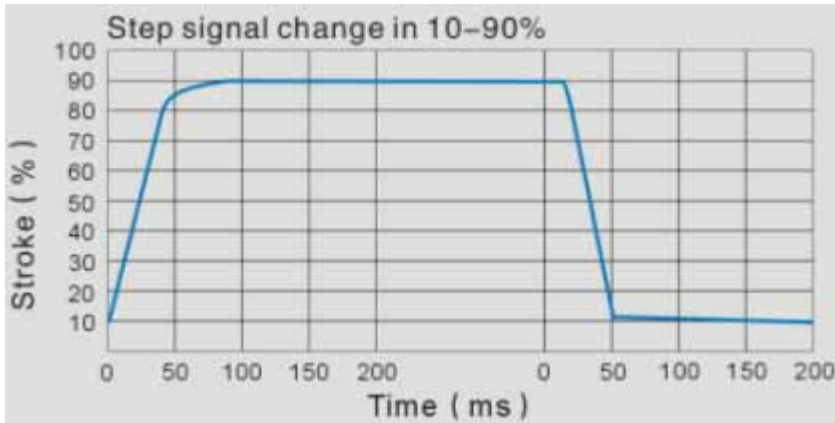
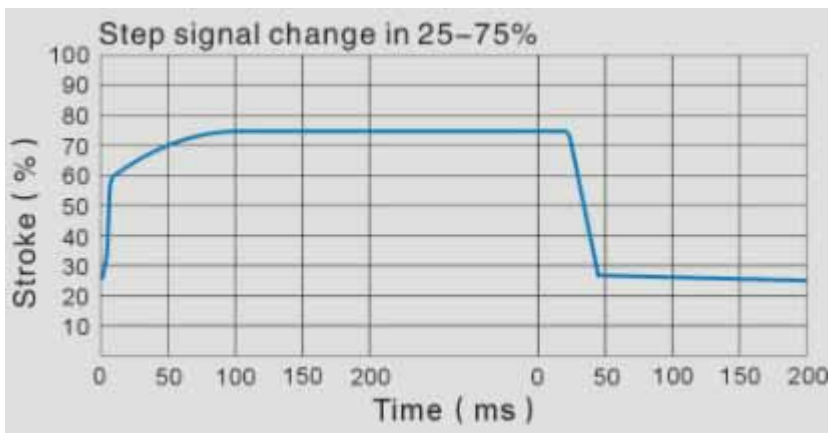
### Technical specification

Model	02	03	
Maximum pressure (MPa)	31.5		
Maximum pressure ( MPa)	<16		
Maximum flow (l/min)	17	50	
Hysteresis (%)	6		
Repeatability (%)	<3		
-3dB Frequency response ( Hz )	5	3	
	800、 1500		
Filtration accuracy ( um )	20		
Hydraulic fluid	Mineral oil, phosphate-ester		
Viscosity (mm <sup>2</sup> /s)	2.8~100		
Fluid temp.(0C)	20~70		
Coil resistance ( )	19.5		
Weight (Kg)	2-Position	1.9	2.6
	3-Position	3.8	4.8

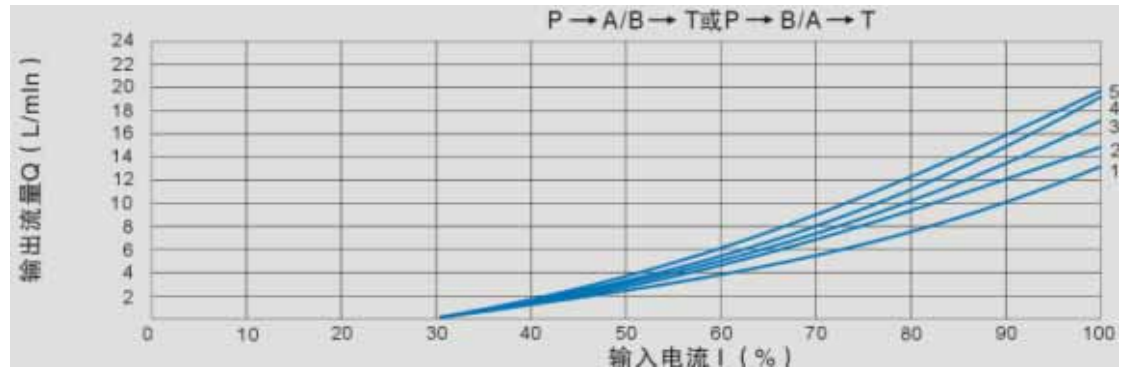
### Model instruction

B FW - * - * - * - 50 *		Remarks
		Design serial number
		(1MPa) Normal flow (based on 1MPa pressure drop )
		02 Model: 8=8 l/min    13=13 l/min    17=17 l/min
		03 Model: 18=18 l/min    27=27 l/min    50=50 l/min
		symbol(see BFFW)
		Specification:
		02=6(DN)    03= 10(DN)
		Type: Proportional directional valve

02 (  $\nu=36 \times 10^{-6} \text{m}^2/\text{S}$   $t=50^\circ\text{C}$  ) Model Characteristic Curves (Testing Condition  $\nu=36 \times 10^{-6} \text{m}^2/\text{S}$   $t=50^\circ\text{C}$ )

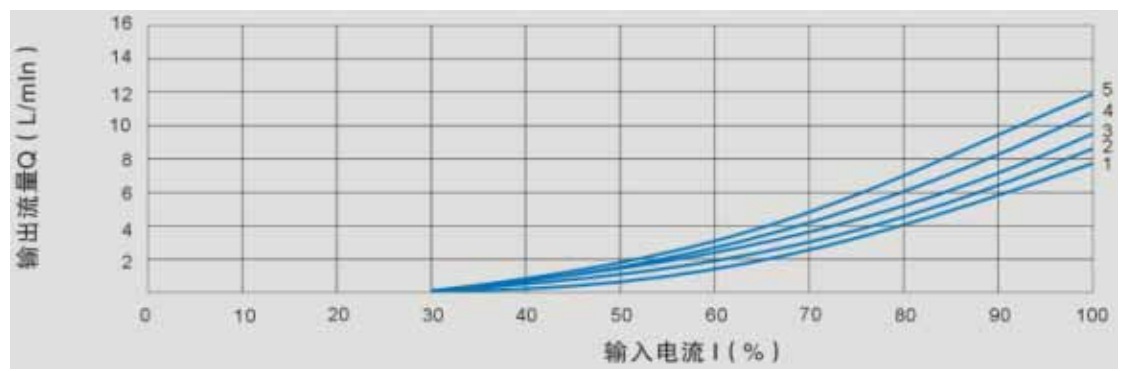


02 (  $\nu = 36 \times 10^{-6} \text{ m}^2/\text{S}$   $t = 50^\circ\text{C}$  ) Model Characteristic Curves (Testing Condition  $\nu = 36 \times 10^{-6} \text{ m}^2/\text{S}$   $t = 50^\circ\text{C}$ )



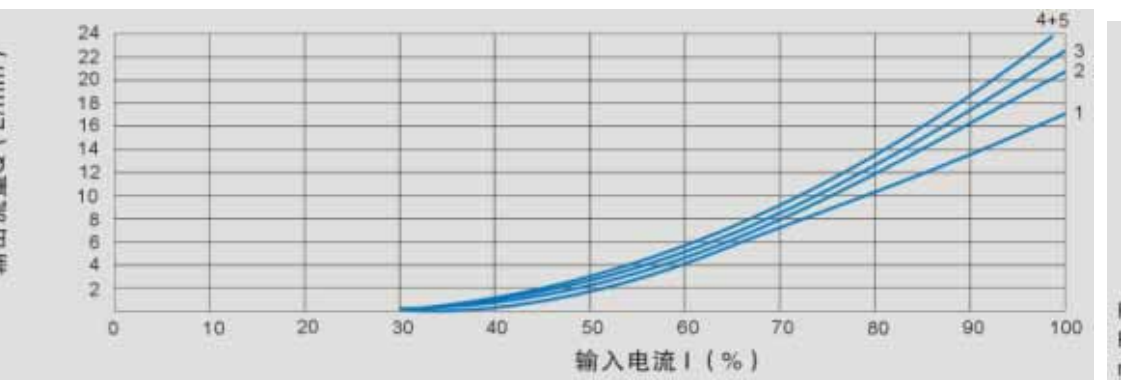
8L/min名义流量在不同阀压降下  
8L/min nominal flow at differential pressure.

- 1 Pv=1MPa恒定Constant
- 2 Pv=2MPa恒定Constant
- 3 Pv=3MPa恒定Constant
- 4 Pv=5MPa恒定Constant
- 5 Pv=10MPa恒定Constant



13L/min名义流量在不同阀压降下  
13L/min nominal flow at differential pressure.

- 1 Pv=1MPa恒定Constant
- 2 Pv=2MPa恒定Constant
- 3 Pv=3MPa恒定Constant
- 4 Pv=5MPa恒定Constant
- 5 Pv=10MPa恒定Constant



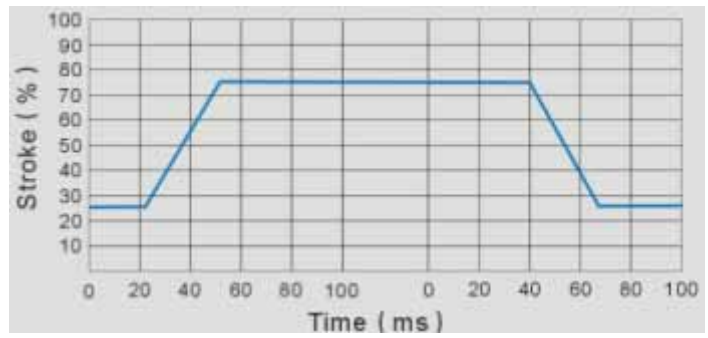
17L/min名义流量在不同阀压降下  
17L/min nominal flow at differential pressure.

- 1 Pv=1MPa恒定Constant
- 2 Pv=2MPa恒定Constant
- 3 Pv=3MPa恒定Constant
- 4 Pv=5MPa恒定Constant
- 5 Pv=10MPa恒定Constant

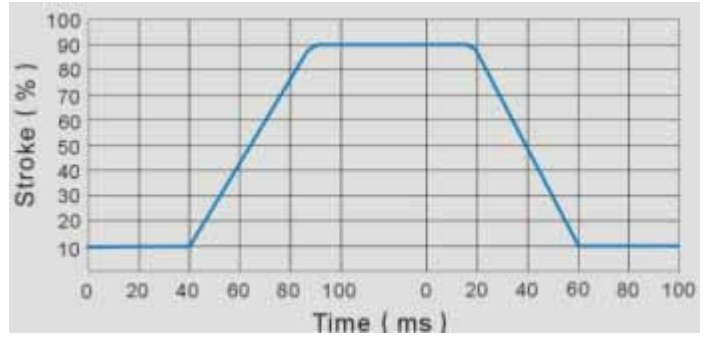
Pv=阀压降 (进口和出口控制台肩的总压降)  
Pv=Valve pressure differential(input pressure minus load pressure and feedback pressure)

03 (  $\nu=36 \times 10^{-6} \text{m}^2/\text{S}$   $t=50^\circ\text{C}$  ) Model Characteristic Curves (Testing Condition  $\nu=36 \times 10^{-6} \text{m}^2/\text{S}$   $t=50^\circ\text{C}$ )

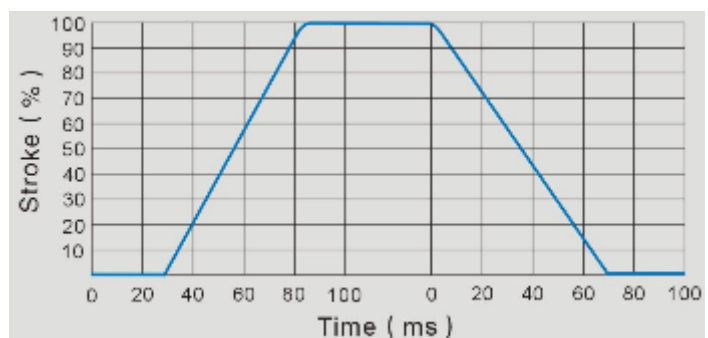
Sted signal change in 25-75%



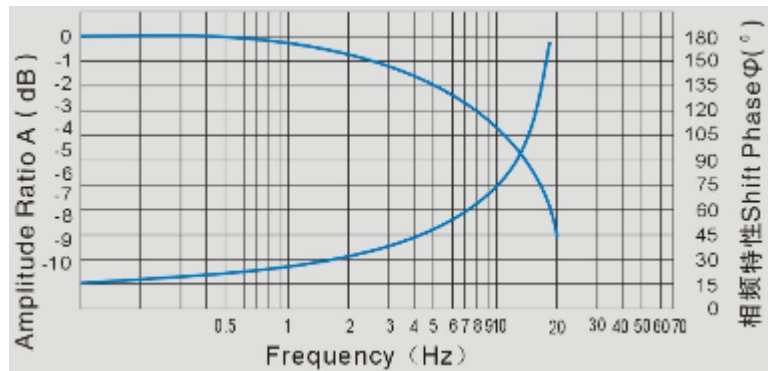
Sted signal change in 10-90%

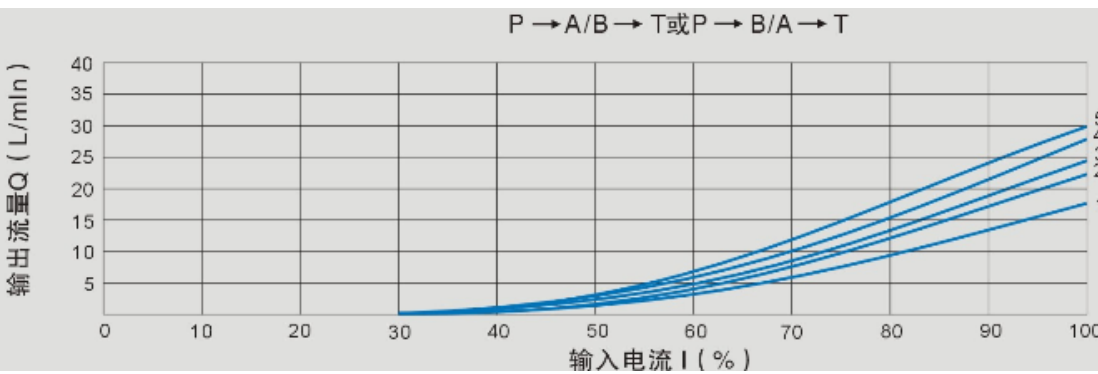


Sted signal change in 0-100%



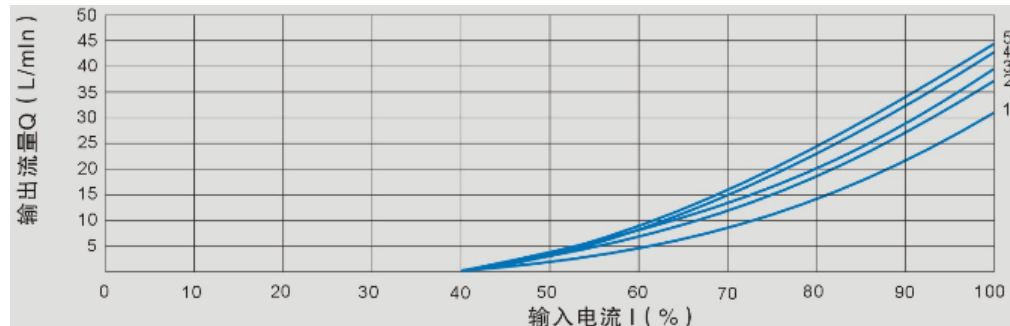
Signal change in 50 + 25%





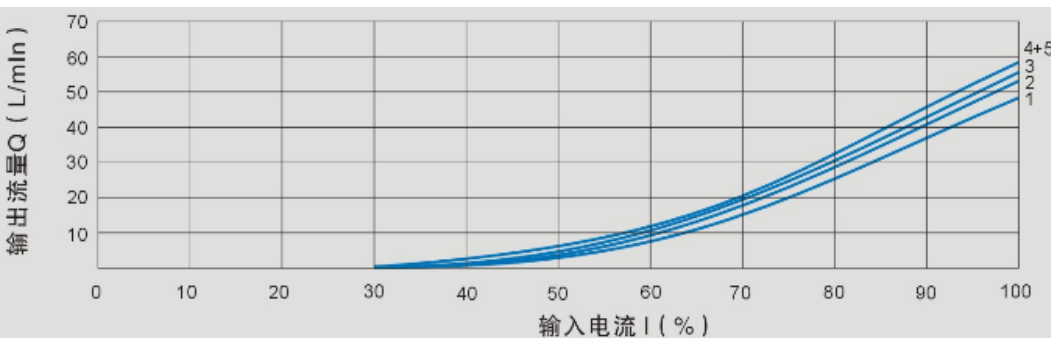
8L/min nominal flow at differential pressure

- 1  $P_v=1\text{MPa}$  恒定 Constant
- 2  $P_v=2\text{MPa}$  恒定 Constant
- 3  $P_v=3\text{MPa}$  恒定 Constant
- 4  $P_v=5\text{MPa}$  恒定 Constant
- 5  $P_v=10\text{MPa}$  恒定 Constant



27L/min 名义流量在不同阀压降下  
27L/min nominal flow at differential pressure

- 1  $P_v=1\text{MPa}$  恒定 Constant
- 2  $P_v=2\text{MPa}$  恒定 Constant
- 3  $P_v=3\text{MPa}$  恒定 Constant
- 4  $P_v=5\text{MPa}$  恒定 Constant
- 5  $P_v=10\text{MPa}$  恒定 Constant

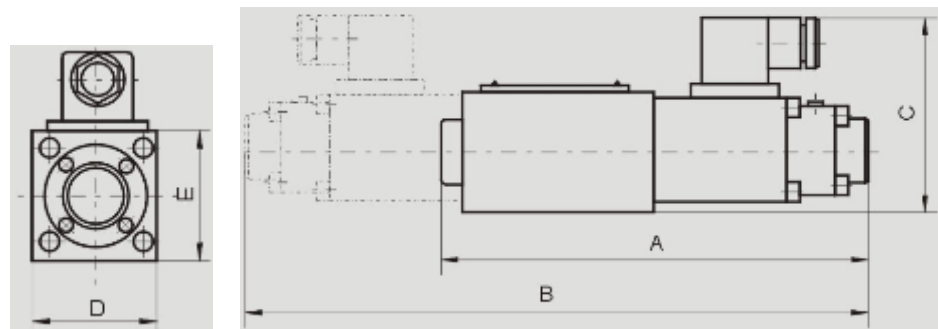


50L/min 名义流量在不同阀压降下  
50L/min nominal flow at differential pressure

- 1  $P_v=1\text{MPa}$  恒定 Constant
- 2  $P_v=2\text{MPa}$  恒定 Constant
- 3  $P_v=3\text{MPa}$  恒定 Constant
- 4  $P_v=5\text{MPa}$  恒定 Constant
- 5  $P_v=10\text{MPa}$  恒定 Constant

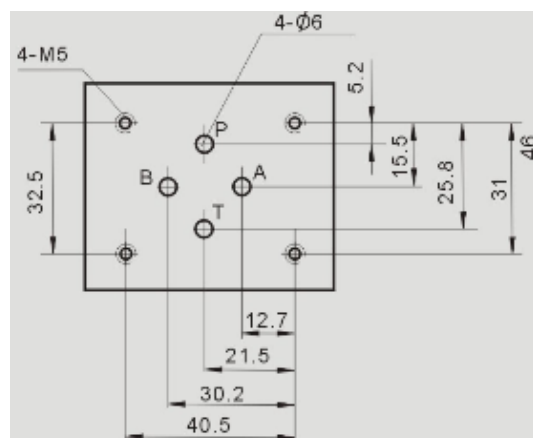
$P_v$  = 阀压降 (进口和出口控制台肩的总压降)  
 $P_v$  = Valve pressure differential (input pressure minus load pressure and feedback pressure)

**Outside size**

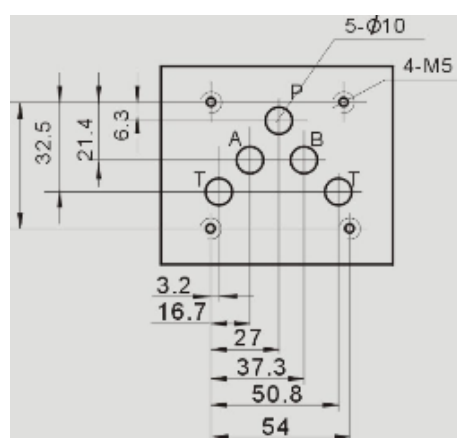


**Plate size**

BFW-02



BFW-03



Model	A	B	C	D	E
BFW-02	171	250	78	47	47
BFW-02	205	285	100	70	68